

**What is Claimed is:**

1. A method of screening a subject for a proliferative disease risk factor,  
comprising:  
detecting the presence or absence of upregulation of the *CLN3* gene in said  
5 subject;  
the upregulation of the *CLN3* gene in said subject indicating said subject is at  
increased risk of developing a proliferative disease.
2. The method of claim 1, wherein said subject has been previously diagnosed  
10 as afflicted with said proliferative disease.
3. The method of claim 1, wherein said subject has not been previously  
diagnosed as afflicted with said proliferative disease.
- 15 4. The method of claim 1, wherein said subject has been previously  
prognosed to be at risk of developing said proliferative disease.
5. The method of claim 1, wherein said subject has not been previously  
prognosed to be at risk of developing said proliferative disease.  
20 6. The method of claim 1, wherein said detecting step is carried out by  
detecting increased mRNA levels for said *CLN3* gene.
7. The method of claim 1, wherein said proliferative disease is cancer.  
25 8. The method of claim 1, wherein said proliferative disease is breast cancer.
9. The method of claim 1, wherein said proliferative disease is colon cancer.
- 30 10. A method according to claim 1, wherein said patient has undergone  
treatment for said proliferative disease.

11. A method of screening a compound for efficacy in the treatment of a proliferative disease, comprising:

providing a group of subjects characterized by either (a) the presence of upregulation of the *CLN3* gene in said group or (b) the absence of upregulation of the

5 *CLN3* gene in said group;

administering said compound to said subjects; and then

determining the efficacy of said compound in the treatment of said proliferative disease.

10 12. A method according to claim 11, wherein said group of subjects is characterized by the presence of upregulation of the *CLN3* gene in said group.

13. A method according to claim 11, wherein said group of subjects is characterized by the absence of upregulation of the *CLN3* gene in said group.

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14. A method according to claim 11, wherein said proliferative disease is cancer.

15. A method according to claim 11, wherein said proliferative disease is  
20 breast cancer.

16. A method according to claim 11, wherein said proliferative disease is colon cancer.

25 17. An *in vitro* method of screening compounds for efficacy in treating a proliferative disease, comprising:

determining *in vitro* whether said compound inhibits the expression of the *CLN3* gene;

the inhibition of expression of the *CLN3* gene indicating said compound is  
30 useful in treating said proliferative disease.

18. A method according to claim 17, wherein said determining step is carried out in a cell.

19. A method according to claim 17, wherein said determining step comprises determining whether said compound inhibits transcription of said *CLN3* gene.
- 5        20. A method according to claim 17, wherein said determining step comprises determining whether said compound inhibits translation of said *CLN3* gene.
21. A method according to claim 17, wherein said proliferative disease is characterized by the upregulation of the *CLN3* gene in subjects afflicted with said  
10 proliferative disease.
22. A method according to claim 17, wherein said proliferative disease is cancer.
- 15        23. A method according to claim 17, wherein said proliferative disease is breast cancer.
24. A method according to claim 17, wherein said proliferative disease is colon cancer.  
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25. A method of inhibiting the growth of proliferative cells, comprising:  
administering to said cells a vector containing and expressing a heterologous nucleic acid, wherein said heterologous nucleic acid encodes a product that inhibits the expression of the *CLN3* gene in said cells.  
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26. A method according to claim 25, wherein said cells are mammalian cells.
27. A method according to claim 25, wherein said vector is a viral vector.
- 30        28. A method according to claim 25, wherein said vector is an RNA virus vector.

29. A method according to claim 25, wherein said vector is a DNA virus vector.
30. A method according to claim 25, wherein said vector is an adenovirus vector.
31. A method according to claim 25, wherein said heterologous nucleic acid encodes an antisense oligonucleotide that binds to *CLN3* mRNA.
32. A method according to claim 25, wherein said heterologous nucleic acid encodes a ribozyme that degrades *CLN3* mRNA.
33. A recombinant vector useful for inhibiting the growth of proliferative cells, said vector containing and expressing in susceptible cells a heterologous nucleic acid, wherein said heterologous nucleic acid encodes a product that inhibits the expression of the *CLN3* gene in said cells.
34. A recombinant vector according to claim 33, wherein said susceptible cells are mammalian cells.
35. A recombinant vector according to claim 33, wherein said vector is a viral vector.
36. A recombinant vector according to claim 33, wherein said vector is an RNA virus vector.
37. A recombinant vector according to claim 33, wherein said vector is a DNA virus vector.
38. A recombinant vector according to claim 33, wherein said vector is an adenovirus vector.

39. A recombinant vector according to claim 33, wherein said heterologous nucleic acid encodes an antisense oligonucleotide that binds to *CLN3* mRNA.

40. A recombinant vector according to claim 33, wherein said heterologous  
5 nucleic acid encodes a ribozyme that degrades *CLN3* mRNA.

41. A method of screening compounds for efficacy in treating a proliferative disease, comprising:

determining *in vitro* whether said compound specifically binds to the *CLN3*  
10 gene product;  
the binding of said compound to the *CLN3* gene product indicating said compound is useful in treating said proliferative disease.

42. A method according to claim 41, wherein said determining step is carried  
15 out by split pool combinatorial chemistry.

43. A method according to claim 41, wherein said determining step is carried out by chip-based combinatorial chemistry.

44. A method according to claim 41, wherein said determining step is carried  
20 out by pin-based combinatorial chemistry.

45. A method according to claim 41, wherein said compound is an oligomeric compound.  
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46. A method according to claim 41, wherein said compound is a non-oligomeric compound.